

Session SD4 - Compiling the earthquake history of the European Mediterranean area
Oral presentation

SD4/Mo/O8 - The European Archive of Historical Earthquake Data (AHEAD): compilation, results, and perspectives

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Historical seismic catalogues in Europe have been mostly compiled on a national basis starting from historical data collected and interpreted according to different procedures and varied levels of formalization. With few exceptions, the macroseismic data that stand behind the catalogues are not available, or simply never existed. The present-day knowledge on past seismicity in Europe is consequently far from being homogeneous. This situation affected the past efforts for the compilation of homogeneous, continent-wide catalogues and still restrains the ongoing initiatives on this topic. To overcome this situation, the NERIES NA4 project realized the European Archive of Historical Earthquake Data (AHEAD). AHEAD collects and puts together in a critical way the background information supporting European earthquakes between the years 1000 and 1963. The collected information consists of the most significant, or recent, material supporting an earthquake, such as: i) studies that interpret the historical records in terms of Macroseismic Data-Points (MDPs); ii) studies that provide the historical records but not interpreted in terms of MDPs; iii) parameters from catalogues, only. AHEAD contains entries related to more than 10.000 earthquakes, and the inventoried material is made available through the web. It also provides in a standardized database the MDPs that support about the 60% of the listed earthquakes. For a large number of them such MDPs have been released for the first time by partner institutions in the framework of NERIES NA4. AHEAD is conceived as an interactive tool for representing and improving the knowledge on historical earthquakes, with the aim of making it homogeneous at a European level. Through the archive researchers can easily: 1) trace back the information supporting each earthquake in order to reappraise and improve the knowledge of it; 2) compare the different studies on each earthquake and select a preferred one. This is, for example, the procedure followed for the selection of data upon which the NERIES NA4 European Earthquake Catalogue has been compiled. 3) help keeping the archive as much up-to-date as possible, commenting studies, data, and parameters and feeding it with fresh studies.

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